

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number  
**WO 2005/029215 A3**

(51) International Patent Classification<sup>7</sup>: **H04L 12/16**,  
12/28, G06F 0/00

(21) International Application Number:  
PCT/KR2004/002367

(22) International Filing Date:  
16 September 2004 (16.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2003-0065249  
19 September 2003 (19.09.2003) KR

(71) Applicant (for all designated States except US): INIMAX  
CO., LTD. [KR/KR]; C-1804, Daelim Acrotel, 467-6, Do-  
gok2-dong, Gangnam-gu, Seoul 135-971 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SHIN, Yong-  
Man [KR/KR]; 613-1205 Jungdeun Maeul, 198-2/5,  
Jeongja-dong, Bundang-gu, Seongnam-si, Gyeonggi-do

463-833 (KR). SONG, SeokChul [KR/KR]; 51-1501  
HyundaiScha Apt., 161-3, Garak-dong, Songpa-gu, Seoul  
138-160 (KR). SHIN, YongTae [KR/KR]; Nadong-103  
Dongdo Villa, Sangdo-dong, Dongjak-gu, Seoul 156-030  
(KR). JU, YongJun [KR/KR]; 632-2404 Sejong Apt.,  
Sanbon-dong, Gunpo-si, Gyeonggi-do 435-040 (KR).

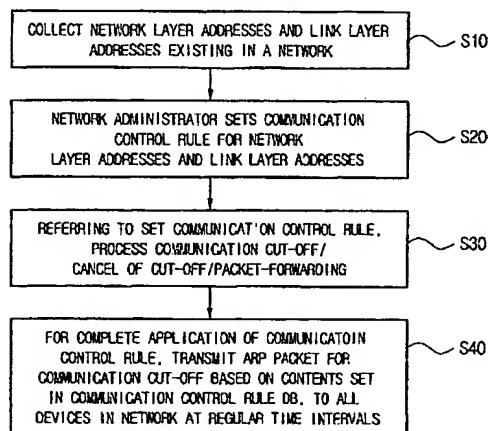
(74) Agent: PARK, HeeJin; 401, Miele Haus Building,  
607-10, Yeoksam-dong, Gangnam-gu, Seoul 135-080  
(KR).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: METHOD OF CONTROLLING COMMUNICATION BETWEEN DEVICES IN A NETWORK AND APPARATUS  
FOR THE SAME



(57) Abstract: Disclosed is a technology by which rules on communication permission or control are enforced to network internal devices such that an environment which looks as if to have a virtual firewall existing between network internal devices can be established. A communication control apparatus for this is located on the same level in the network as other devices are located. By using this communication control apparatus, an address resolution protocol (ARP) packet in which a data link layer address is manipulated is provided to devices that are the objects of communication cut-off, such that data packets transmitted by the communication cut-off object devices are transmitted to manipulated abnormal addresses. By doing so, communication with the communication cut-off object devices is cut off. For a device which is in a communication cut-off state although the device is not an object of communication cut-off any more, the communication control apparatus transmits an ARP packet including normal address information to the device such that the communication cut-off state is canceled.



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:  
1 December 2005

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*